

**THE VISUAL AND AUDITORY DICHOTOMY OF VOCABULARY  
INSTRUCTION IN 7TH GRADE STUDENTS AT WANG NUEA  
WITTAYA SCHOOL, LAMPANG**

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**1. Introduction**

Visual and Auditory are two dimensions of learning style. These two modalities concern learners' preference of learning process that they prefer to learn by using visual or auditory means to help them learn better. Visual learners are people who prefer learning through written language or visual materials. To explain, as stated by Mindtool content creators, "a visually-dominant learner absorbs and retains information better when it is presented in, for example, pictures, diagrams and charts." (Mindtools, 2018). While, auditory learners tend to prefer learning by audio tapes, listening or lectures. Moreover, the visual learners also often use their imagination or visualize the lesson to help them learn better. To exemplify, Mindtools content creators claimed that, "an auditory-dominant learner prefers listening to what is being presented." The auditory learners respond to voices best, for instance, they learn better through a process of a lecture or group discussion. They also learn better if they can hear themselves or tutor repeat what they are learning back. (Mindtools, 2018)

According to *Principle of Language Learning and Teaching*, there are many types of binary opposition learners' cognitive styles. One of those pairs is Visual and Auditory learners. Each group of learners, therefore, learn better through a different teaching approach as the findings from a research "Does student learning style affect performance on different formats of biomechanics examinations?" stated that adapting the use of cognitive styles to the teaching methods can improve students' efficiency and effectiveness in learning and also allows teachers to identify learning difficulties of each individual learner as well (Hsieh, 2012). Thus, we wonder if there are some inequalities in teaching process in school or not. To exemplify, some teaching approaches may benefit one group more than the other for they have different styles of learning. To clarify, our major aim is to find out whether auditory teaching approach benefit auditory learners more than visual learners, and, in the same way, whether visual teaching approach benefit visual learners more than auditory learners or not. This question leads us to conduct this research in order to prove that teaching approaches significantly affect students' performance in the classroom due to their different types of learning.

## **Hypothesis**

The 7th Grade students at Wang Nue Wittaya school who are visual learners that learn from visual instruction and students who are auditory learners that learn from auditory instruction are able to retain the intended vocabulary the most.

## **Research question**

Which group of learners; visual learners who learn from visual instruction, auditory learners who learn from auditory instruction, visual learners who learn from auditory instruction, and auditory learners who learn from visual instruction, are able to retain the intended vocabulary the most?

## **2. Previous Works**

In order to accomplish the research, it is necessary to review different related previous studies.

### **2.1 Contrasting Effects of Age of Acquisition and Word Frequency on Auditory and Visual Lexical Decision**

Turner, Valentine, and Ellis examined the effects of frequency and age of acquisition on auditory and visual ability to remember and produce vocabulary by they divided the subjects into 4 groups in order to find out the influences of age of acquisition, and word frequency has mostly concentrated on object naming and word naming. In their Experiment 1, they examined the effect of frequency on auditory lexical decision when age of acquisition was controlled. Their Experiment 2 examined

the effect of age of acquisition on auditory lexical decision, using word sets matched for frequency, imageability, length, cohort size, and position of the uniqueness point. Experiment 3 examined the effect of frequency on lexical decision in the visual modality with age of acquisition controlled. Experiment 4 examined the effect of age of acquisition on visual lexical decision. They hypothesized that the age at which words were learned influenced the speed and accuracy with which they could be recognized in adulthood, with words learned early being processed more rapidly and more accurately than those acquired later. Moreover, frequency and age of acquisition were clearly related. That is, the words that children learn earliest in life tend to be the words that occur with high frequency in adults' language. The subjects for these four experiments were volunteer undergraduates or postgraduates from the University of Durham. Everyone had normal hearing and were paid for their participation. The subjects were divided into 4 groups of experiment including Experiment 1 (20 subjects), Experiment 2 (20 subjects), Experiment 3 (26 subjects), and Experiment 4 (25 subjects). The data were collected by looking at the effects of frequency on auditory lexical decision (Experiment I) and written lexical decision (Experiment 3), using sets of words matched on age of acquisition and other variables, and at the effects of age of acquisition on auditory lexical decision (Experiment 2) and written lexical decision (Experiment 4), using sets of words matched on frequency and other factors. The research project found that in Experiment 1, there was no effect of word frequency on auditory lexical decision speed when age of acquisition was controlled. In Experiment 2, there was a strong effect of age of acquisition on auditory lexical decision speed using word sets matched for frequency. Moreover, in experiment 3 and

4, age of acquisition and word frequency have an influence in visual lexical decision speed.

## **2.2 Learning styles and their relation to teaching styles**

The researcher supposed that student's learning styles and preferences play an important role in their academic performance. The definition of visual and auditory learners were provided in the research paper. Visual learners prefer to think in pictures and gather information from visual materials: diagrams or videos. Auditory learners, however, retrieve information by listening to the discussion or speech. They also get advantages from reading texts out loud rather than writing down the information. The researcher eventually concluded that learning style tremendously impacts students' academic performance. Students who study accordingly to their preference of learning styles tend to academically perform better than those who do not. This research is worth studying as it is a research about learning styles and the result of applying them on teaching.

## **2.3 Primary School Pupils' Response to Audio-Visual Learning Process in Port-Harcourt**

The research studied about how audio-visual learning process from watching television could help children in primary school learn better. The subject for this research were children from Grades 3 to 7 in Chokhmon International Academy, Port-Harcourt. The research aimed to find whether there was a relationship between audio-visual cognitive process and learning capacity of primary school children by using

survey as a method of researching. Students were tested if they could remember the lesson from television program and if there were any factors that helped them respond to it. The research was conducted by using 106 copies of questionnaires which contains 20 questions. The instrument was screened and evaluated by the head-teachers. Data from the research questions were analyzed by using the simple percentage method. The findings were, first, there was a measurable relationship between audio-visual learning process and pupils' capacity of learning. To clarify, they learned a variety of skills (such as interaction, singing, and art) while watching a television program for education. Second, the use of audio-visual technique helped children remember and learn. However, their emotions could be an interference for their response to audio-visual learning process.

## **2.4 The effects of Auditory Learning Strategy on Learning Skills of Language Learners (Students' Views)**

This study was conducted by Kayalar and Keyalar (2017). This study aimed to evaluate the views of students over auditory teaching and learning strategy for an interactive and communicative classroom environment and increase teachers' awareness of auditory learning and teaching in classroom environment. It is known that auditory learning style enables auditory learners to learn best by hearing or through verbal communication. Auditory learners are good at remembering what they hear as they learn information through auditory representation. The participants were fifteen language learners in Namık Kemal University in Tekirdağ and Erzincan University in Erzincan. This study used qualitative method by interviewing

participants with two open ended questions to determine and interpret language learners' views on auditory learning strategy used in their courses. This study analyzed the data by transferring and digitalizing the data from the interview into computer so that create digital data. The study employed content analysis with the percentage and frequency values. With the results of the surveys, G. K. German Learner in N.K University stated that he found videos and sound presentations very useful learning tools for him in classes. He liked group study and discussion. He preferred taking oral examinations to written ones. Moreover, he fully participated in lecture when teacher used the player. He said he learnt best in this way. From his statement, it was determined that learning style of the learner is much more important than the teaching style of the teacher. Furthermore, T.N. French, learner in N.K University, stated that he liked listening stories and played in foreign language. He found Learning with Drama to be very useful for him to learn vocabulary and pronunciation efficiently. He gained vocabulary through listening to music. In this way he could learn many words in foreign language. Therefore, it was determined that the learners have learnt language effectively with stories and auditory style. The two examples of result found in the study portrays that auditory learners learn best when they learn in sound classroom environment.

### **3. Data Collection**

#### **Participants**

The participants were 40 students of 7th grade from Wang Nuea Wittaya School

#### **Tools/ instruments**

**1. Pre-test:** A list of 10 targeted vocabulary words believed not to be exposed to taught to student participants

**2. Post-test:** the same set of vocabulary words with their order being shuffle

**3. Questionnaire:** this research employed perceptual learning style preference questionnaire by Joy Reid in order to distinguish two groups of students: visual and auditory groups. The questionnaire was designed in table pattern divided into 3 columns. The first column was situations given. The second and third column were the boxes to check “Yes” or “No” based on the preference in given situations. The teaching team found the questions based on age and analytical skill of 7 grade students.

#### **Procedure**

Firstly, the pretests were handed out to the students to observe their background knowledge about the set of vocabularies. The students were told to complete the test by translating the list of 10 English vocabulary words into Thai. The students were not allowed to copy other's the answer so the teaching team needed to observe them closely. The test took 15 minutes to be completed. After the pretest papers were completed, the questionnaires utilized to distinguish students to the learning style of visual and auditory were provided to the students. To complete this

test successfully, the teaching team carefully explained the description of the questionnaire to the students. The students were allowed to ask the questions if not understand. The students had only 15 minutes to complete the questionnaire so the teaching team always stood by to help the students and motivated them to finish the questionnaire in time. Then, students were divided into two groups, one group is given a visual class whereas the other is given an auditory class. The students of both groups consisted of both visual and auditory students. The researchers assumed that students whose learning style did not match the style of teaching would perform less successfully than those whose learning style matched the instructional style. Eventually, the students were given the posttest papers to evaluate the acquisition of words.

## **Lessons**

For visual learners, teaching team showed the pictures illustrating the meanings of the intended words to students and explain the meaning of the words related to the pictures at the same time. Then, students were divided into two groups. Representatives from each group were given vocabulary words. They had to remember the vocabulary words given and draw the pictures illustrating the words they had remembered on the board so the other could guess the words' meanings. For auditory learners, the teaching team had the set of vocabularies shown to students. The instruction was mainly achieved by presenting the intended words orally. The instructors pronounced the words and stated their meanings to the students, respectively. Students were required to listen to the vocabulary words and repeated them after the instructors. At the end, game was used with students. The same set of

vocabularies was shown to students to answer the meaning of vocabulary words the instructors had taught.

#### **4. Data Analysis**

The data were analyzed by looking at vocabulary that students can remember and write down on the post-tests we give them after finishing teaching process. We expected that students will retain all the intended vocabulary. If the students write the given vocabulary, the set of word we taught by using both Visual and Auditory teaching approaches, all correctly, they will be measured as achieved students. If the students write the given vocabulary incorrectly even only one answer, they will not be evaluated as achieved students. After that, the scores were calculated into percentage by take the number of correct students multiply one hundred and divided by number of all students.

#### **Findings**

**Table 1.** A percentage of Visual and Auditory learners who retain all the intended vocabulary when using Visual teaching approach.

<b>Types of learners</b>	<b>Number of correct students</b>	<b>Number of all students (person)</b>	<b>Percentage</b>
Visual learners	8	15	53.4%
Auditory learners	4	5	80%

Table 1. shows a comparison between Visual learners and Auditory learners whom were taught by using Visual teaching approach. The results are, out of 15 students, 8 Visual learners or 53.4% of them can retain all vocabulary that they were taught by Visual teaching approach. The second group, the Auditory learners, they can retain vocabulary that they were taught by using Visual teaching approach 4 out of 5 students or 80% of them.

**Table 2.** A percentage of Visual and Auditory learners who retain all the intended vocabulary when using Auditory teaching approach.

Types of learners	Number of correct students	Number of all students (person)	Percentage
Visual learners	9	15	60%
Auditory learners	4	5	80%

Table 2. shows a comparison between Visual learners and Auditory learners whom were taught by using Auditory teaching approach. The results are, out of 15 students, 9 Visual learners or 60% of them can retain all vocabulary that they were taught by Auditory teaching approach. The second group, the Auditory learners, they can retain vocabulary that they were taught by using Auditory teaching approach 4 out of 5 students or 80% of them.

**Table 3.** A comparison between Visual learners who learn by using Visual approach and those who learn by using Auditory approach.

Types of teaching approach	Number of correct students	Number of all students (person)	Percentage
Visual	4	5	80%
Auditory	4	5	80%

Table 3. shows a comparison between two groups of Visual learners, those were taught by using Visual teaching approach and those we taught by using Auditory teaching approach. The results are, out of 5 students, 4 Visual learners or 80% of them can retain all vocabulary that they were taught by Visual teaching approach. The second Visual learners group, they can retain vocabulary that they were taught by using Auditory teaching approach 4 out of 5 students or 80% of them.

**Table 4.** Shows a comparison between Auditory learners who learn by using Visual approach and those who learn by using Auditory approach.

Types of teaching approach	Number of correct students	Number of all students (person)	Percentage
Visual	8	15	53.4%
Auditory	9	15	60%

Table 4. shows a comparison between two groups of Auditory learners, those were taught by using Visual teaching approach and those we taught by using Auditory

teaching approach. The results are, out of 15 students, 8 Auditory learners or 53.4% of them can retain all vocabulary that they were taught by Visual teaching approach. The second Auditory learners group, the they can retain vocabulary that they were taught by using Auditory teaching approach 9 out of 15 students or 60% of them.

## **Conclusion**

This study investigated the 7th Grade Wang Nue Wittaya students' retention of the vocabulary given through the different teaching approach. According to the data analysis, the result is that Auditory learners tend to retain the intended vocabulary words more than Auditory learners in both Visual and Auditory teaching approaches. However, when comparing Visual learners who learned by Visual approach and those who learned by Auditory approach, the results were the same. In contrast, when comparing Auditory learners who learned by Visual approach and those who learned by Auditory approach, the Auditory learners who learned by Auditory approach tend to retain the intended vocabulary more than those who learned by Visual approach. Thus, the hypothesis is disproved.

## **Suggestion**

This study was subjected to two limitations during the problem facing us while collecting the data were, first, the students assigned to do a pretest, cheated in the test because they were seated not so far away from each other, despite our close monitoring process. Moreover, when we asked for representative of each group to look at the vocabulary and draw the picture on the whiteboard, the students cheated by try to look at a piece of paper which contain the vocabulary. These might make

students cannot remember the vocabulary given. In addition, our second limitation was that the students' learning preference can affect the variant of the result. To explain, 7th Grade students at Wang Nue Wittaya School tend to prefer visual learning style a lot more than auditory style. Thus, we have less auditory subjects to conduct the research. In conclusion, this might be one of possible factors that cause our hypothesis to deviate.

## **5. Work Cited**

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## **APPENDIX**